

SENATE RECORD VOTE ANALYSIS

105th Congress
1st Session

Vote No. 42

April 15, 1997, 10:09 am
Page S-3140 Temp. Record

NUCLEAR WASTE/Final Passage

SUBJECT: Nuclear Waste Policy Act of 1997 . . . S. 104. Final passage, as amended.

ACTION: BILL PASSED, 65-34

SYNOPSIS: As passed, S. 104, the Nuclear Waste Policy Act of 1997, will set deadlines for the Department of Energy (DOE) to meet its contractual obligations to accept and to store at a single permanent repository the nuclear waste generated by the commercial nuclear power industry; that site will also be used to store all Federal nuclear waste. Congress has selected Yucca Mountain, Nevada, as the site to be considered for the permanent repository. If the President decides that site is unsuitable, a timetable for selecting an interim central storage site will be followed; the Nevada Test Site will be selected as the interim site if another interim site is not agreed upon by the President and Congress (the Nevada Test Site is commonly referred to as being at Yucca Mountain because it is on immediately adjacent land, and both sites are federally owned). If Yucca Mountain is approved for a permanent repository, an interim repository will be built at the Nevada Test Site. Details are provided below.

Assessment and construction timetable:

- DOE will make a viability assessment on the suitability of the Yucca Mountain site for a permanent repository no later than December 1, 1998;
- DOE will either approve or disapprove a generic design for an interim storage facility by December 31, 1998;
- the President, at his sole and unreviewable discretion, will decide no later than March 1, 1999, if he believes that the Yucca Mountain site is unsuitable based on information available to him at that time;
- if the President decides it is unsuitable, he will have 18 months to designate an interim storage site, and Congress will have 2 years to approve any designation; if a site is not designated and approved in that time frame, the Nevada Test Site adjacent to Yucca Mountain will be designated as the interim storage site;
- if the President does not determine that Yucca Mountain is unsuitable, the Nevada Test Site will be designated as the location for the interim storage facility no later than March 31, 1999;
- within 30 days of designating an interim storage facility site, an application for a license for the site will be filed;

(See other side)

YEAS (65)			NAYS (34)			NOT VOTING (1)	
Republicans (53 or 96%)		Democrats (12 or 27%)	Republicans (2 or 4%)		Democrats (32 or 73%)	Republicans (0)	Democrats (1)
Abraham	Hutchison	Cleland	Campbell	Akaka	Ford		Rockefeller-2AN
Allard	Inhofe	Graham	Coats	Baucus	Glenn		
Ashcroft	Jeffords	Harkin		Biden	Inouye		
Bennett	Kempthorne	Hollings		Bingaman	Kennedy		
Bond	Kyl	Johnson		Boxer	Kerrey		
Brownback	Lott	Kohl		Breaux	Kerry		
Burns	Lugar	Leahy		Bryan	Landrieu		
Chafee	Mack	Levin		Bumpers	Lautenberg		
Cochran	McCain	Moseley-Braun		Byrd	Lieberman		
Collins	McConnell	Murray		Conrad	Mikulski		
Coverdell	Murkowski	Robb		Daschle	Moynihan		
Craig	Nickles	Wyden		Dodd	Reed		
D'Amato	Roberts			Dorgan	Reid		
DeWine	Roth			Durbin	Sarbanes		
Domenici	Santorum			Feingold	Torricelli		
Enzi	Sessions			Feinstein	Wellstone		
Faircloth	Shelby						
Frist	Smith, Bob						
Gorton	Smith, Gordon						
Gramm	Snowe						
Grams	Specter						
Grassley	Stevens						
Gregg	Thomas						
Hagel	Thompson						
Hatch	Thurmond						
Helms	Warner						
Hutchinson							

EXPLANATION OF ABSENCE:

- 1—Official Business
- 2—Necessarily Absent
- 3—Illness
- 4—Other

SYMBOLS:

- AY—Announced Yea
- AN—Announced Nay
- PY—Paired Yea
- PN—Paired Nay

● prior to issuing a license, a final environmental impact statement (EIS) on the interim facility in accordance with the National Environmental Policy Act (NEPA) will be prepared; that statement will include a generic analysis of the impacts of transporting nuclear waste; the EIS will not consider site selection issues;

● if the Yucca Mountain site is not disapproved, the interim facility will begin operations by June 30, 2003;

● if the Yucca Mountain site is disapproved, an interim facility will begin operations by May, 2005;

● the DOE will determine the interim facility's capacity based on the amount needed to accommodate fill rates; assuming a 2015 operational date for a permanent repository, the initial capacity will be 33,100 metric tons;

● if the Yucca Mountain site is not disapproved by the President, a final NEPA environmental impact statement on it will be published by September 30, 2000, the DOE will publish its decision on whether it will apply for a permanent repository license for the site by October 31, 2000, and it will either apply for a license by October 31, 2001 or will notify Congress that the site does not satisfy licensing requirements (see vote No. 40 for related debate);

● the Environmental Protection Agency (EPA) will set the public radiation protection standard using a risk methodology that will result in a standard of between 25 and 30 millirem (the originally proposed standard was 100 millirem); and

● a license will be granted if the NRC finds reasonable assurance that the site will comply with system requirements for 10,000 years following its filling and closing.

Transportation:

● the Department of Energy (DOE) will take all necessary and appropriate steps to transport safely nuclear waste to the interim storage facility;

● only transportation containers approved by the Nuclear Regulatory Commission (NRC) will be used;

● no later than 24 months after submitting a license application for an interim storage facility a comprehensive transportation management plan will be implemented; that plan will be prepared in consultation with affected States and Indian tribes, and will include a public comment period in its preparation;

● for each site from which waste will be transported, a shipping campaign transportation plan will be developed, which will be fully integrated with State and tribal government notification, inspection, and emergency response plans (unless the DOE certifies that a State or tribe has failed to cooperate in fully integrating its plan with the Federal plan; see vote No. 39 for related debate);

● waste will be shipped on the primary route selected by the DOE or on a State-designated alternative route, as decided by the DOE; the DOE will use Department of Transportation and NRC regulations in selecting routes;

● the DOE will conduct a nationwide public education program on the transport of nuclear waste;

● the Hazardous Materials Transportation Act will apply to all shipments;

● State and tribal governments will be given advance notice of shipments;

● subject to very limited exceptions, Federal training for State and tribal officials in transporting nuclear waste and in responding to emergency situations involving nuclear waste will be provided for at least 3 years prior to any shipments; funding will also be provided; and

● technical training will be provided to transportation workers who will move the waste, and existing employee protections for workers who refuse to work in hazardous conditions will apply to workers who move nuclear waste.

Miscellaneous:

● a 2-tier fee system will be created in order to improve funding while staying within budget rules (see vote No. 31);

● no Budget Act points of order that require 60 votes to waive will be automatically considered waived when considering adjustments to the fees that fund this program;

● other funding, technical assistance, and payment in lieu of taxes funds will be provided to affected units of local governments and Indian tribes;

● the DOE will conduct research on alternatives to the permanent disposal of nuclear waste (for instance, other nuclear-energy countries dispose of high-level nuclear waste by "burning" it in reactors, producing even more energy);

● actions under this bill will be governed by the Nuclear Waste Policy Act, the Atomic Energy Act, the Hazardous Materials Transportation Act, and any other requirements of Federal, State, or local law that are not inconsistent with those acts;

● the DOE will take title to the spent nuclear fuel owned by Dairyland Power Cooperative's La Crosse reactor, and will be authorized to pay for on-site storage until it removes the waste;

● nothing in this Act will be construed as modifying any right of a party that has in effect a contract with the Federal Government for the Government to take that party's nuclear waste, or as modifying the obligations imposed on the Federal Government in *United States v. Batt* (No. 91-0054-S-EJL);

● it is the sense of the Senate that a settlement should be reached in *Northern States Power (Minnesota) v. Department of Energy* before enactment of this Act; and

● it is the sense of the Senate that elderly and disabled legal immigrants who are unable to work should receive assistance essential to their well-being, and that the President, Congress, the States, and faith-based and other organizations should continue to work together toward that end.

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Those favoring final passage contended:**Argument 1:**

If this bill is enacted, all of the high-level nuclear waste in America will be moved from temporary storage sites in more than 80 locations in 41 States to a single, remote, safe place. If this bill is not enacted, that waste will stay scattered across the country in sites that were built to hold waste for only a short time. Many of those sites are in highly populated areas; many of those sites are near water supplies; many of those sites are in areas with seismic activity. Failure to enact this bill also will result in huge costs to the taxpayers because the Government will be liable if it does not meet its contractual commitments to move the nuclear waste, and will result in a loss of 22 percent of the United States' electrical supply in the next couple of decades as nuclear power plants are forced to shut down early. Environmentalists are trying to achieve that second goal. In our opinion, this bill will not be enacted. President Clinton probably will carry through on his veto threat, and that veto probably will be upheld. The status quo situation, which everyone at least claims to abhor, will continue indefinitely.

A review of how we reached this point is in order. Nuclear power, when it began, was the darling of the environmentalists. A few nuclear plants were built in the 1950s, but in the 1960s their production really took off. Environmentalists pushed to have them built because they produced electricity cleanly--they did not produce carbon dioxide, nitric oxide, or sulfur dioxide. The Sierra Club, for instance, was the major supporter of the Diablo Canyon nuclear plant in California. By the early 1970s 30 to 40 new nuclear plants were being ordered each year. Then, in the early 1970s, after the Arab oil embargo, environmentalists changed their mind about nuclear power. They began to campaign for ideal or risk free sources such as solar power and wind energy. Energy was not scarce--higher oil prices led to greater oil production (and then lower oil prices), nuclear power plants that were ordered prior to 1973 continued to come on line well after 1973, and new coal power plants were built. Basically, environmentalists had the luxury to be picky. They decided that they did not like the fact that nuclear power plants produced nuclear waste, and they were concerned that somehow someday one might leak some radiation. They gradually turned public opinion against nuclear energy by pointing out that nuclear waste (unless it is reprocessed) lasts forever, and by warning against perceived dangers to the public from nuclear plant "meltdowns." Even more effective was their use of the regulatory process and the courts to delay the construction of new power plants. Those delays were expensive, and resulted in nuclear power becoming a more expensive option than other forms of electricity. No nuclear power plants have been ordered and built since 1973.

Interestingly, overall electricity use went up 70 percent between 1973 and 1994, and nuclear energy's share of electricity production increased from 4 percent to 22 percent in that same timeframe due to plants coming on line that were ordered before 1973. In total, there are 110 nuclear plants in operation in the United States, and 10 more which have already shut down. The remaining 110, assuming they are not updated and are not given extended operating licenses, will gradually shut down in the next century. They will have to be shut down much more quickly if the waste that they have been storing on-site is not removed soon. By next year, 23 of those 110 reactors will be out of storage space; by 2010, an additional 25 will be out of space. In every one of those cases, the waste is being stored in facilities that were not designed to store nuclear waste for extended periods of time. Spent nuclear fuel rods are just put in swimming pools and are protected by chain-link fences and a few security guards. As these swimming pools fill up, the only alternative for utilities, due to space considerations, is to put the waste in dry-cask storage or close down. Dry-cask storage is expensive, and in the current anti-nuclear climate it is difficult to get approval for it. The Minnesota Legislature, for instance, just went through a bruising battle to allow a utility to use limited dry-cask storage, but through the year 2004 only. Over the next couple of decades, if the Federal Government does not live up to its commitment to store the waste in a central location, we expect that many if not most nuclear power plants in America will be forced to shut down due to a lack of storage space. Then, and only then, do we believe that the environmentalists will be willing to allow the waste to be moved. Until then, they are willing to hold the American people hostage by keeping high-level nuclear waste stored all over America.

By the early 1980s Congress pretty well understood that the environmentalists had won the war against the nuclear power industry, which had been largely built because of environmentalists. It knew that the utilities again preferred to build coal-fired plants, and, assuming that the anti-nuclear climate lasted, that when the useful lives of the existing nuclear plants were exhausted the plants would be shut down and they would not be replaced. Congress also knew that it had a problem. Nuclear waste soon would be stored at closed plants all across the country, and it would be stored in facilities that were built to be temporary. Congress decided as a matter of public policy that it did not want nuclear waste permanently stored all over the country. It determined, correctly, that it would make more sense to gather it up and put it in one remote, well built and secure location. It therefore imposed a tax in 1982 on nuclear utilities' customers to pay for the cost of building a central storage facility, and set a deadline of 1998 for the Government to start accepting nuclear waste from commercial plants. (Congress also decided to store all the nuclear waste the Federal Government had created over the years at the same site. In total, all of the high-level nuclear waste ever generated in the United States will fit in a repository 4-yards deep that is about the size of a football field. Opponents of this bill like to say that the tax is on rich monopolistic utilities, and that this bill is to help those utilities. It is a lovely class warfare argument, but it is ridiculous. Utilities are regulated monopolies; their profits are controlled by State and local governments; they have captive customers. With or without this bill they will do well, but never too well.) Most of the rest of the world had decided that it would reprocess its nuclear waste to produce even

more power, but that option could not be followed in the United States because of opposition to nuclear power plants. Environmentalists did not and do not want new plants built that can burn up nuclear waste; they want to get rid of all nuclear power production. Under this bill, the repository that will be built will have to last for longer than recorded history--it will have to be totally safe for at least 10,000 years.

When Congress decided to bury the waste, it gave the DOE the task of selecting the site and told it to enter into contracts with utilities to begin accepting nuclear waste by 1998. In 1987, after the DOE had failed to make any headway in selecting a site, Congress passed another law telling it to study only Yucca Mountain, Nevada, to see if it was a suitable place to have a permanent storage repository. This action brings us to the first main objection to this bill. That objection is from the Senators from Nevada, and it is a valid objection. Basically, they have said it was unfair to pick a site in their State. They are correct. However, if Congress had not acted, it is doubtful that the Department of Energy would ever have settled on a single site. As evidence, we point out that nearly 10 years have passed since it told the Department of Energy to look at this site only instead of at every possible place in America, and after spending \$3 billion and nearly 10 years looking exclusively at this site the DOE still has not reached a decision (in total, the DOE has spent only \$6 billion of the \$13 billion it has collected from utility ratepayers). Clearly, Congress showed foresight in prodding the Department. Further, it appears that Congress probably made a good choice, because the scientists involved in the study tell us that there is a 90 percent chance that the viability (initial) determination will be favorable, and an 80 percent chance that the suitability determination will be favorable.

The DOE, having not even yet decided if a repository can be built at Yucca Mountain, obviously is not going to meet the 1998 deadline. The courts have already decided that the United States will be legally liable for that failure. Between now and 2035, if the waste is not moved, those liability costs will run as high as \$80 billion. That comes to \$1,300 per family that the Federal Government will end up having to pay for failing to build a repository.

Right now, if the DOE decides Yucca Mountain is suitable, the official completion date for the permanent repository is 2010 (though the DOE recently said it could not finish before 2015). That official date is 12 years behind schedule, and by that time three-fourths of the nuclear plants in America will have run out of storage space and probably have been forced to close. Under current law, when and if Yucca Mountain is licensed for a permanent facility, then an interim central storage facility can be built. This bill will change current law by setting up a process to force a decision on an interim storage facility whether or not Yucca Mountain is picked. This process will be followed to make sure that the inability of the DOE to reach a decision will not become a de facto decision to leave the waste scattered all over the United States, costing the taxpayers \$80 billion in damages and causing a loss of 22 percent of our country's electric supply when nuclear plants are forced to close. Indecision in this case would be a decision of momentous consequence. This bill will require an interim facility to be put at the Nevada Test Site right next to Yucca Mountain if Yucca Mountain is determined to be suitable, and if the Nevada Test Site meets environmental requirements for temporary storage (we do not see how it could fail; the Nevada Test Site is in the middle of a desert, is in a highly secure installation, and has been the location of 50-years worth of above-ground and below-ground nuclear tests. Further, it will be stored in casks that have survived the most rigorous safety tests imaginable). Putting the waste right next to Yucca Mountain temporarily while the permanent repository is built makes eminent sense because it will only have to be moved a very short distance (on Federal lands only) to be permanently stored. If Yucca Mountain is not picked, the President will have 18 months to pick an alternate site, and Congress will have 2 years to consider his pick or picks, but if Congress and the President do not come up with a solution the waste will be moved to the Nevada Test Site. Again, our colleagues from Nevada say that choice is unfair; but if it is an environmentally safe choice, and if the Government is unable to come to a decision, it is an astronomically better choice than the alternative, de facto choice of letting the waste stay where it is.

Some of our colleagues have said that the Nuclear Waste Technical Review Board opposes any construction of an interim repository until a permanent site is selected. They tell us that we should accept this advice because the board is comprised of eminent scientists. However, they ignore the fact that the reason the board gave was political, not scientific. It said that it did not think the public would trust any determination it made on a permanent site if that decision was made after the waste had already been moved to a temporary storage site. With all due respect, we are not interested in its political opinions. We urge those scientists to do the job they were hired to do--tell us whether or not Yucca Mountain is a suitable place for storing nuclear waste permanently. Our colleagues have also said that those scientists insist that the waste can continue to be stored safely, and temporarily, where it is now. We do not dispute that fact. However, we point out that those scientists have not said that it is safer scattered in swimming pools around the country than it would be in one remote, secure location, nor have they said that it would be dangerous to transport the waste.

Our colleagues, though, have gone on at length how dangerous they believe it would be to transport nuclear waste to an interim storage site. They have had amazing tunnel vision in their arguments. Apparently, the only time that it is dangerous to transport nuclear waste is if it is on its way to an interim or permanent storage facility in Nevada. Tons of high-level nuclear waste have been shipped all over America for decades. We have shown one map in this debate that shows the rail and road routes that have been used for more than 2,400 shipments all across America; we point out that the State of Idaho alone has received more than 4,600 shipments of high-level nuclear waste. In not one instance, ever, has a shipment cask released radioactive material. Further, waste is being

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shipped from 40 countries around the world right now to the United States for storage, and research reactors across America are also shipping nuclear waste. Our colleagues have not said one word of opposition to any of the other nuclear waste shipments. If it is really so dangerous, why have they supported bills in the past approving such shipments? The reason the United States has never had any problems is that nuclear waste transportation casks have been subjected to every imaginable test to ensure their safety. They have been dropped onto steel spikes; they have been run into with locomotives; they have been crashed into walls at 70 miles per hour. At one time, when it was anticipated that waste would be moved by air, designs were made so that they could withstand falls from 40,000 feet (nuclear waste will not be moved by air; the current casks are made to withstand any conceivable truck, barge, or rail accident). As soon as nuclear waste is taken out of temporary storage pools and put in shipment casks it will be safer; as soon as it is placed in Yucca Mountain it will be safe forever.

Our colleagues understand these facts, yet they persist in this smokescreen in an effort to kill the bill. In politics perception often trumps reality. In this case, reality tells us that without a hard and fast deadline to move nuclear waste, nuclear waste will not be moved. If it is not moved, power plants will shut down, costing the United States 22 percent of its electrical supply, and the American taxpayers will end up with the \$80 billion bill for the Federal Government's failure to move the waste. However, we understand that the perception is that it is dangerous to move nuclear waste, and enough Senators either share that perception or are willing to exploit it that we suspect that they will be able to sustain the President's veto.

We imagine that someday the waste will be moved, but meanwhile it will remain stored in large amounts in highly populated areas instead of in one secure, remote area. Eventually, we believe that any amounts centrally stored may be sold overseas. Energy consumption is increasing worldwide as countries develop and populations grow, many of those countries are committed to nuclear power, and nuclear materials are dwindling. Yucca Mountain may not be a nuclear repository for eternity. This debate is frustrating because nuclear energy is a safe, non-polluting source of power. It produces waste, but that waste is not released into the environment, and, if environmentalists would stop their opposition, the technology now exists to burn up that waste in modern nuclear power plants. The United States will be able to get by on other sources of power, but if nuclear energy is cheaper and cleaner, why should it have to? Absent another capricious shift in the environmental movement, we doubt that nuclear power is going to stage a comeback in the United States. The best that we think we will get is a gracious exit that will not cost the taxpayers or nuclear power company customers too dearly. We will probably not win this time, but we are getting closer. Soon we think we will have enough Senators to override a veto. As long as nuclear waste remains scattered around the country we will be back; someday we will succeed in getting it moved to a safe, remote location.

Argument 2:

Last year we voted against this bill. This year we will vote for it because of numerous improvements that have been made. We are particularly pleased that efforts have been made to strengthen the application of environmental laws to the building of a permanent repository, and that no construction will begin on an interim repository until after Congress and the President have been given ample time to select an alternate site in the event that Yucca Mountain does not pass its viability test. We still have some concerns, but, on balance, the bill is now supportable.

Those opposing final passage contended:

Argument 1:

Rarely have we seen a more flawed bill than the one before us. This bill will require the unsafe transportation of huge amounts of highly radioactive waste to a single storage site for which environmental laws have been weakened, it will do so against the expert advice of a science review board, and it will do so on the false claim that there is some type of emergency that requires the movement of nuclear waste right now. The first flaw is that it continues to pick on Nevada. All of those Senators who are ordinarily concerned about States' rights should demand with us that we first get rid of the current law requirement that only Yucca Mountain in Nevada should be considered as a permanent storage site, and they should then join us in getting rid of the requirement in this bill to make the Nevada Test Site the default interim storage site. There is no scientific basis for picking either of these two sites in Nevada as the best possible sites in America for dumping toxic nuclear waste; these are political decisions. The next bill problem is that when that waste is dumped on Nevada, it will be dumped in contravention of all of the environmental laws. Currently, each State has the right to enforce and strengthen the Federal laws as they apply within its borders. This bill, though, takes away the right of Nevada to enforce those laws more stringently than they are written. The Federal Government will enforce them. In some cases, they will be enforced to weaker standards. For instance, the bill now says that the EPA can set the risk standard, but it also sets limits on how strict a standard it may set. The third, and absolutely enormous, problem is that this bill will very likely result in all of the country's high-level nuclear waste being hauled to Nevada for temporary storage before a permanent storage site is selected. If that happens, we can almost guarantee that a permanent site will never be selected. Forty-one States currently have nuclear waste that they want to get rid of, but after nearly 20 years of effort it still has not been possible to come up with a permanent storage location. If the waste is moved to a single State, then the pressure to build a repository will come only from that single State, and the chances of that State

prevailing will be virtually nil. The temporary storage site in Nevada, which will be a giant, open-air concrete slab on which barrels of waste will be stored, will become the de facto permanent storage site. The fourth, equally huge problem is that no safe way exists to transport nuclear waste. The shipment containers that are currently in use are only made to withstand accidents of up to 30 miles per hour, and are only able to survive temperatures that are well below the typical temperatures reached in diesel fires. This bill will result in more than 13,000 shipments of the most dangerous, toxic substances known to man; many of those shipments will be for distances of 2,000 miles or more, and most of them will be on trains and trucks running on diesel fuel, going much faster than 30 miles per hour, and traveling through highly populated areas. Does any of this sound safe? Environmental groups unanimously oppose this bill. Churches oppose this bill. Even the technical review board created by Congress to give advice on the storage of nuclear waste opposes this bill. There is simply no reason we have to rush to judgment, discarding all safety and environmental laws on the way. Nuclear power plants have ample on-site storage for the next several years. The only reason for moving the waste now is that it will save the nuclear utilities a little money. They do not like having to pay for storing the nuclear waste; they want the Federal Government to pick up the tab, and they want it to pick it up now. Those huge, wealthy utilities have a lot of influence on Capitol Hill, and they have again been able to get Senators to offer this bill to respond to a supposed crisis. Thankfully, President Clinton is willing to stand up to the rich utilities. He will veto this bill. We are confident that we will then have enough Senators of courage to sustain that veto. If a responsible, fair bill for the disposal of nuclear waste is ever presented to us, we will happily support it. This is not such a bill. We urge its defeat.

Argument 2:

We fully support moving nuclear waste to a single, safe location, but we do not think this bill contains adequate transportation safeguards. We are especially concerned that the States will not be able to prevent the Federal Government from moving it near or through major metropolitan areas such as Denver. Compounding this concern is that the bill will likely result in the waste being stored temporarily at the Nevada Test Site even if it is determined that the permanent site will not be at Yucca Mountain. Our problem with that decision is that when a permanent site is then selected all of the waste will then be moved again, and it will again likely go right past or through major metropolitan areas. We have other problems with this bill as well. Though it is much better than the bill that was considered last Congress, and though we support its purpose, we cannot support its particular provisions, and must therefore vote against final passage.